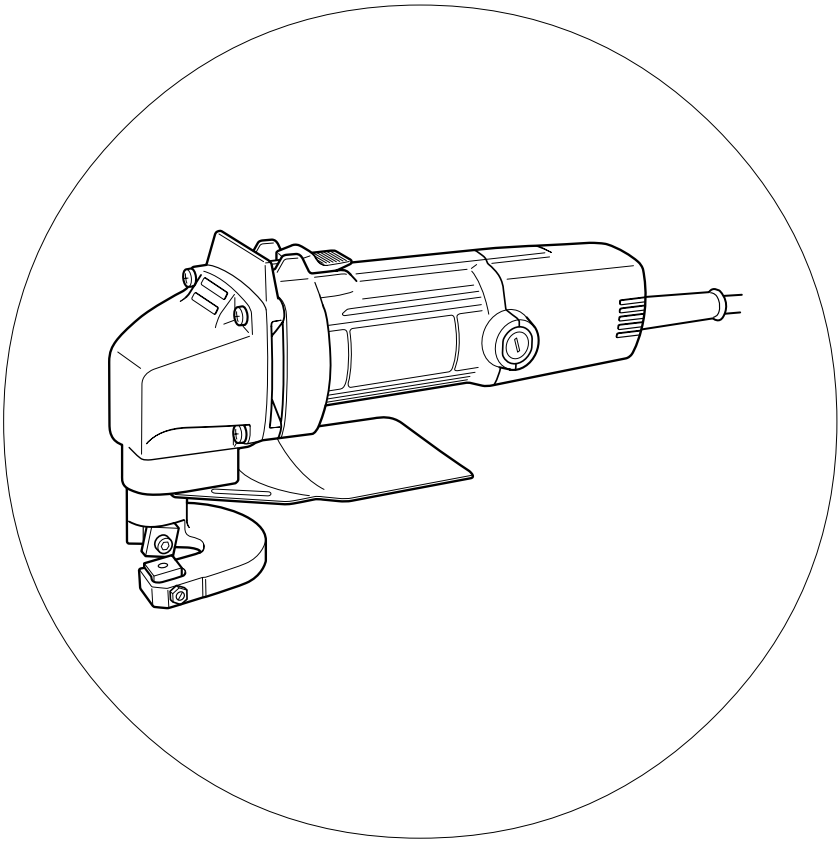
HITACHI

日立牌电剪刀
Hand Shear

CE 16SA

使用说明书
Handling instructions



使用前务请详加阅读。
Read through carefully and understand these instructions before use.

Hitachi Koki

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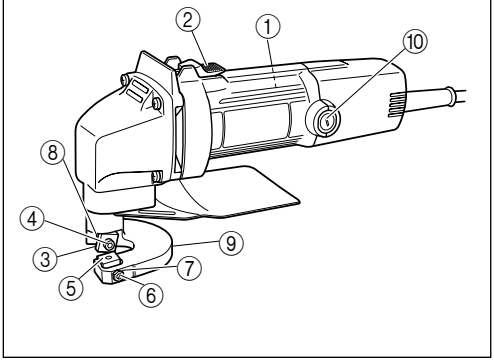

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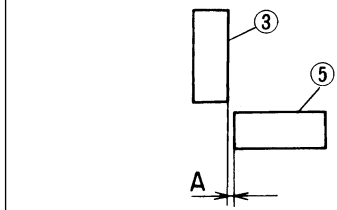

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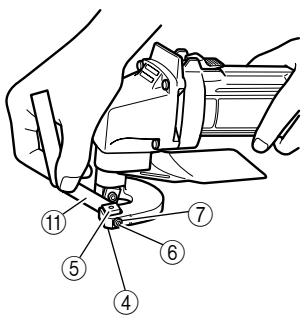

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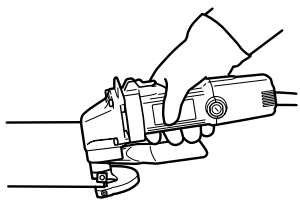

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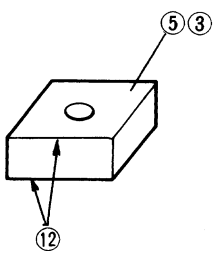

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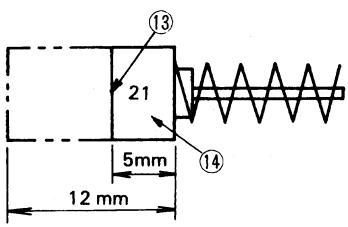


①	铭牌	Name plate
②	开关	Switch
③	可动刀片	Moving Blade
④	内六角螺栓	Hexagon Socket Hd. Bolt
⑤	固定刀片	Stationary Blade
⑥	有槽固定螺丝 M4 × 14	Slotted Set Screw M4 × 14
⑦	锁定螺母	Lock Nut M4
⑧	话塞	Piston
⑨	刀片座	Blade Holder
⑩	刷子盖	Brush Cap
⑪	厚度量规	Thickness Gauge
⑫	切口	Cutting Edge
⑬	磨损极限	Wear Limit
⑭	碳刷号	No. of Carbon Brush

一般安全规则

警告!
阅读说明
没有按照以下列举的说明而使用或操作将导致触电、著火和/或严重伤害。
在所有以下列举的警告中术语“电动工具”指市电驱动（有线）电动工具或电池驱动（无线）电动工具。

保存这些说明

1) **工作场地**
   a) **保持工作场地清洁和明亮。**
   混乱和黑暗的场地会引发事故。
   b) **不要在易爆环境，如有易燃液体、气体或粉尘的环境下操作电动工具。**
   电动工具产生的火花会点燃粉尘或气体。
   c) **让儿童和旁观者离开后操纵电动工具。**
   分心会使你放松控制。

2) **电气安全**
   a) **电动工具插头必须与插座相配。**
   绝不能以任何方式改装插头。
   需接地的电动工具不能使用任何转换插头。
   未经改装的插头和相配的插座将减少触电危险。
   b) **避免人体接触接地表面，如管道、散热片和冰箱。**
   如果你身体接地会增加触电危险。
   c) **不得将电动工具暴露在雨中或潮湿环境中。**
   水进入电动工具将增加触电危险。
   d) **不得滥用电线。**
   绝不能用电线搬运、拉动电动工具或拔出其插头。
   让电动工具远离热、油、锐边或运动部件。
   受损或缠绕的电线会增加触电危险。
   e) **当在户外使用电动工具时，使用适合户外使用的外接电线。**
   适合户外使用的电线将减少触电危险。

3) **人身安全**
   a) **保持警觉，当操作电动工具时关注所从事的操作并保持清醒。**
   切勿在有疲倦，药物、酒精或治疗反应下操作电动工具。
   在操作电动工具期间精力分散会导致严重人身伤害。
   b) **使用安全装置。始终配戴护目镜。**
   安全装置，诸如适当条件下的防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。
   c) **避免突然起动。**
   确保开关在插入插头时处于关断位置。
   手指放在已接通电源的开关上或开关处于接通时插入插头可能会导致危险。
   d) **在电动工具接通之前，拿掉所有调节钥匙或扳手。**
   遗留在电动工具旋转零件上的扳手或钥匙会导致人身伤害。
   e) **手不要伸得太长。**
   时刻注意脚下和身体平衡。
   这样在意外情况下能很好地控制电动工具。
   f) **着装适当。**
   不要穿宽松衣服或佩带饰品。
   让你的头发、衣服和袖子远离运动部件。
   宽松衣服、佩饰或长发可能会卷入运动部件。
   g) **如果提供了与排屑装置、集尘设备连接用的装置，则确保他们连接完好且使用得当。**
   使用这些装置可减少碎屑引起的危险。

4) **电动工具使用和主意事项**
   a) **不要滥用电动工具，根据用途使用适当的电动工具。**
   选用适当的设计额定值的电动工具会使你工作更有效、更安全。
   b) **如果开关不能接通或关断工具电源，则不能使用该电动工具。**
   不能用开关来控制的电动工具是危险的且必须进行修理。
   c) **在进行任何调节、更换附件或贮存电动工具之前，必须从电源上拔掉插头和/或将电池盒脱开电源。**
   这种防护性措施将减少电动工具突然起动的危险。
   d) **将闲置电动工具贮存在儿童所及范围之外，并且不要让不熟悉电动工具或对这些说明不了解的人操作电动工具。**
   电动工具在未经训练的用户手中是危险的。
   e) **保养电动工具。检查运动件的安装偏差或卡住、零件破损情况和影响电动工具运行的其他条件。**
   如有损坏，电动工具必须在使用前修理好。
   许多事故由维护不良的电动工具引发。
   f) **保持切削刀具锋利和清洁。**
   保养良好的有锋利切削刃的刀具不易卡住而且容易控制。
   g) **按照使用说明书以及打算使用的电动工具的特殊类型要求的方式，考虑作业条件和进行的作业来使用电动工具、附件和工具的刀头等。**
   将电动工具用作那些与要求不符的操作可能会导致危险情况。

5) **维修**
   a) **将你的电动工具送交专业维修人员，必须使用同样的备件进行更换。**
   这样将确保所维修的电动工具的安全性。

注意事项
不可让儿童和体弱人士靠近工作场所。
应将不使用的工具存放在儿童和体弱人士接触不到的地方。

使用电剪刀使得注意事项

1. **请注意切口：**
   刚被电剪刀剪切开的切口很锋利，请不要被此切口碰伤。
2. **在刀片达到适当速度时，方可开始剪切。**
   打开开关后，请等到刀片达到适当速度时再开始剪切。
3. **请保护好电源线。**
   请注意保护好电源线。不要被切口割破外壳或割断。

规　格

电压（按地区）*		（110伏，120伏，127伏，220伏，230伏，240伏）∿
功率输入*		400瓦
剪切能力	软钢板（400N/毫米平方）	1.6毫米
	不锈钢板（600 N/毫米平方）	1.2毫米
	铝板（200 N/毫米平方）	2.3毫米
不加负载时的行程次数		4700/分
重量（不含线缆）		1.7公斤

* 当须改变地区时应检查产品上的铭牌。

标 准 附 件

(1)　厚度量规 1
(2)　六角杆扳手 1
标准附件可能不预先通告而径予更改。

用　途

○ 用于剪切钢板、黄铜板、铜板、铝板、不锈钢板、锅板及其他金属板，也可以用于剪切皮革和纤维板。

作 业 之 前

1. **电源：**
   确认所使用的电源与工具铭牌上标示的规格是否相符。
2. **电源开关：**
   确认电源开关是否切断。若电源开关接通，则插头插入电源插座时电动工具将出其不意地立刻转动，从而招致严重事故。
3. **延伸线缆：**
   若作业场所移到离开电源的地方，应使用容量足够、铠装合适的延伸线缆，并且要尽可能地短些。
4. **调整剪切刀片之间的水平间隔。**
   请按下列顺序（**图 3**），将刀片之间的水平间隔（**图 2** 中的A）调至要剪切的钢板厚度的1/10左右。

(1) 先将扣紧固定刀片的内六角螺栓松开，然后再将M4链定螺母松开，并轻轻地将M4有槽固定螺丝推回。
(2) 从所备的厚度量规中，选择一个其厚度是剪切板厚度的1/10的量规。厚度量规的厚度被标注在量规上。将量规插入刀片之间并松松地旋上内六角螺栓后，用螺丝刀旋转M4有槽固定螺丝，直至固定刀片碰到厚度量规为止。
(3) 如刀片间的间隔大于剪切板的厚度切口将会变毛。如刀片间的间隔太窄，将会影响剪切速度。需要剪切曲线时，请将刀片的间隔稍调大，以便于操作。
(4) 调节完毕后，请紧紧地旋紧M4螺母，否则，在操作期间M4螺母会变松。
(5) 将用于扣紧固定刀片的内六角螺栓紧紧旋紧。

剪　切

注意：
- ○　切勿剪切厚度超过电剪刀能力的平板。否则，会导致电剪刀的过早破损。
- ○　只有将平板牢牢固定住之后，才能开始剪切操作。

剪切薄板时，请按**图 4** 所示方法，水平地拿着电剪刀。

为了便于剪切厚板，如切落边缘向左移动（**图 4**）时，请稍抬高电剪刀的后部，而切落边缘向右移动时，请稍降低电剪刀的后部。

更 换 刀 片

本电剪刀使用一次性刀片。每个刀片有8个剪切口（如**图 5** 所示），每个剪切口切了400米的平板后，其剪切性能便会下降。这时，请使用另一剪切口。当8个剪切口都被用过并被损坏之后，请更换刀片。

维 护 和 检 查

1. **检查刀片**
   如使用损坏了的或有凹口的刀片，会引起马达超负并影响电剪刀的工作性能。因此，请使用性能良好的刀片。
2. **检查安装螺钉：**
   要经常检查安装螺钉是否紧固妥善。若发现螺钉松了，应立即重新扭紧，否则会导致严重的事故。
3. **电动机的维护：**
   电动机绕线是电动工具的心脏部。应仔细检查有无损伤，是否被油液或水沾湿。
4. **检查碳刷：（图6）**
   电动机上的碳刷是一种消耗品，其磨耗度一旦超出了“磨耗极限”，电动机将发生障碍。因此，磨耗了的碳刷应即更换新件。此外，碳刷必须常保干净状态，这样才能在刷握里自由滑动。
5. **碳刷的更换：**
   用一字形头螺丝刀拆卸刷盖，碳刷就可简单地取下。
6. **维修部件目录**
   A: 项目号
   B: 代码号
   C: 使用数
   D: 备注

注意：
日立电动工具的维修、维护和检查必须有日立所认可的维修中心进行。
当寻求修理或其他维护时，将本部件目录与工具一起提交给日立所认可的维修中心会对您有所帮助。
在操作和维护电动工具中，必须遵守各国的安全规定和标准规定。

改进：
日立电动工具随时都在进行改进以适应最新的技术进步。
因此，有些部件可能未预先通知而进行改进。

注：
为求改进，本手册所载规格可能不预先通告而径予更改。

GENERAL SAFETY RULES

WARNING!

Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) **Work area**
   a) **Keep work area clean and well lit.**
      Cluttered and dark areas invite accidents.
   b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.**
      Power tools create sparks which may ignite the dust of fumes.
   c) **Keep children and bystanders away while operating a power tool.**
      Distractions can cause you to lose control.

2) **Electrical safety**
   a) **Power tool plugs must match the outlet.**
      Never modify the plug in any way.
      Do not use any adapter plugs with earthed (grounded) power tools.
      Unmodified plugs and matching outlets will reduce risk of electric shock.
   b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.**
      There is an increased risk of electric shock if your body is earthed or grounded.
   c) **Do not expose power tools to rain or wet conditions.**
      Water entering a power tool will increase the risk of electric shock.
   d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool.**
      Keep cord away from heat, oil, sharp edges or moving parts.
      Damaged or entangled cords increase the risk of electric shock.
   e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.**
      Use of a cord suitable for outdoor use reduces the risk of electric shock.

3) **Personal safety**
   a) **Stay alert, watch what you are doing and use common sense when operating a power tool.**
      Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.
      A moment of inattention while operating power tools may result in serious personal injury.
   b) **Use safety equipment. Always wear eye protection.**
      Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
   c) **Avoid accidental starting. Ensure the switch is in the off position before plugging in.**
      Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
   d) **Remove any adjusting key or wrench before turning the power tool on.**
      A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
   e) **Do not overreach. Keep proper footing and balance at all times.**
      This enables better control of the power tool in unexpected situations.
   f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.**
      Loose clothes, jewellery or long hair can be caught in moving parts.
   g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**
      Use of these devices can reduce dust related hazards.

4) **Power tool use and care**
   a) **Do not force the power tool. Use the correct power tool for your application.**
      The correct power tool will do the job better and safer at the rate for which it was designed.
   b) **Do not use the power tool if the switch does not turn it on and off.**
      Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
   c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.**
      Such preventive safety measures reduce the risk of starting the power tool accidentally.
   d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.**
      Power tools are dangerous in the hands of untrained users.
   e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation.**
      If damaged, have the power tool repaired before use.
      Many accidents are caused by poorly maintained power tools.
   f) **Keep cutting tools sharp and clean.**
      Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
   g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.**
      Use of the power tool for operations different from intended could result in a hazardous situation.

5) **Service**
   a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.**
      This will ensure that the safety of the power tool is maintained.

PRECAUTION

Keep children and infirm persons away.

When not in use, tools should be stored out of reach of children and infirm persons.

PRECAUTIONS ON USING THE HAND SHEAR

1. Beware of sharp panel edges.
   The edge of the plate just cut by the hand shear is very sharp. Take care in not getting hurt by the sharp edge.
2. Start cutting only after the blade attains the proper speed.
   After turning on the power switch, wait until the blade attains the proper speed, then start cutting.
3. Preserve the power cord.
   Be sure that the power cord is not abraded or cut by the sharp edge of the cut panel.

SPECIFICATIONS

Voltage (by areas)*		(110V, 120V, 127V, 220V, 230V, 240V) ∿
Input		400W*
Cutting capacity	Mild steel plate (400N/mm^2)	1.6 mm
	Stainless steel plate (600N/mm^2)	1.2 mm
	Aluminum plate (200N/mm^2)	2.3 mm
Number of strokes at no load		4700/min
Weight (without cord)		1.7 kg

* Be sure to check the nameplate on product as it is subject to change by areas.

STANDARD ACCESSORIES

(1) Thickness gauge 1
(2) Hexagon bar wrench 1
Standard accessories are subject to change without notice.

APPLICATIONS

○ For shearing steel plate, brass plate, copper plate, aluminum plate, stainless steel plate, tin plate, and other metal plates, also leather and fiberboard.

PRIOR TO OPERATION

1. **Power source**
   Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.
2. **Power switch**
   Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.
3. **Extension cord**
   When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.
4. **Adjusting the horizontal gap between the shearing blades**
   Adjust the horizontal gap between the shearing blades (A in **Fig. 2**) at approximately 1/10 the steel plate thickness to be sheared, according to the following procedures. (**Fig. 3**)

(1) Loosen the hexagonal socket bolts fastening the stationary blade. Loosen the M4 lock nut, and push back the M4 slotted set screws slightly.
(2) From the supplied thickness gauges, select one that is 1/10 the thickness of the panel to be cut. Thickness of each thickness gauge is marked thereon. Insert the gauge in between the blades, then tighten the hexagonal socket bolts very loosely. Next, use a screwdriver to turn the M4 slotted set screws to position the stationary blade until it hits the thickness gauge.
(3) If the space between blades is larger than the thickness of the panel to be cut, there will be burrs for a less than clean cut.
   If the space between blades is too narrow, cutting speed will be affected. For cutting in a curved line, making the space a little bigger will make the cutting easier.
(4) After adjustment, tighten the M4 nuts securely so they will not loosen during operation.
(5) Securely tighten the hexagonal socket bolts fastening the stationary blade.

CUTTING

CAUTION

○ Do not attempt to cut panels of thicknesses that are beyond the capability of the hand shear. Doing so will result in premature breakage of the hand shear.
○ Perform the cutting operation only after the panel is fixed securely.

When cutting thin panels, level the unit horizontally, as shown in **Fig. 4**.
To facilitate smooth cutting of thick panels, if the cut-off side goes toward the left, (**Fig. 4**) raise the rear of the unit slightly. And if the cut-off side goes toward the right, lower the rear of the unit slightly.

BLADE REPLACEMENT

The hand shear uses disposable blades. Each blade has 8 cutting edges, as shown in **Fig. 5**. After a cutting edge cuts 400 meters of panel, cutting performance will fall. Then use another cutting edge. After all 8 cutting edges are used and worn, replace the blade.

MAINTENANCE AND INSPECTION

1. **Inspecting the blade**
   Using a worn or chipped blade will put an excessive burden on the motor and affect work performance. Therefore, always use a well-cutting blade.
2. **Inspecting the mounting screws:**
   Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.
3. **Maintenance of the motor**
   The motor unit winding is the very "heart" of the power tool. Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.
4. **Inspecting the carbon brushes (Fig. 6)**
   The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush can result in motor trouble, replace the carbon brush with a new one having the same carbon brush No. shown in the figure when it becomes worn to or near the "wear limit". In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.
5. **Replacing carbon brushes**
   Disassemble the brush cap with a screwdriver. The carbon brush can then be easily removed.
6. **Service parts list**
   A: Item No.
   B: Code No.
   C: No. Used
   D: Remarks

CAUTION

Repair, modificatio}–and inspection of Hitachi Power Tools must be carried out by an Hitachi Authorized Service Center.

This Parts List will be helpful if presented with the tool to the Hitachi Authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

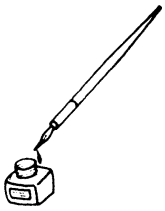
MODIFICATIONS

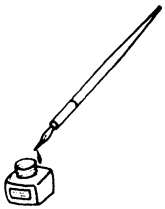
Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

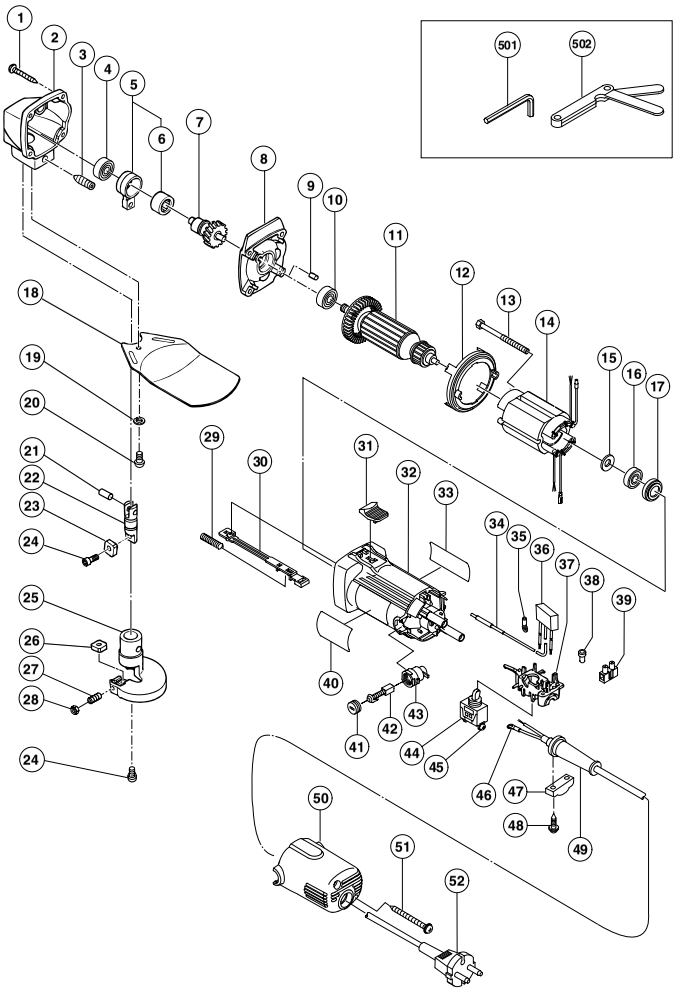
Accordingly, some parts (i.e. code numbers and/or design) may be changed without prior notice.

NOTE

Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.







A	B	C	D
1	957-580	4	D5×30
2	998-003	1	
3	998-008	1	M8×20
4	608-VVM	1	608VVC2PS2L
5	998-004	1	″6″
6	993-163	1	M152112
7	998-006	1	
8	998-002	1	
9	931-701	1	
10	608-VVM	1	608VVC2PS2L
11 1	360-622C	1	110V
11 2	360-622U	1	120V-127V ″10, 15, 16″
11 3	360-622E	1	220V-230V
11 4	360-622F	1	240V
12	306-840	1	
13	982-021	2	D4×70
14 1	340-567C	1	110V
14 2	340-567D	1	120V-127V
14 3	340-567E	1	220V-230V
14 4	340-567F	1	240V
15	942-204	1	
16	626-VVM	1	626VVC2PS2L
17	309-929	1	
18	998-010	1	
19	949-454	1	M5
20	949-237	1	M5×15
21	993-546	1	D6
22	998-005	1	
23	998-000	1	
24	949-812	2	M4×10
25	998-007	1	
26	998-001	1	
27	998-009	1	M4×14
28	949-565	1	M4
29	314-429	1	
30	314-427	1	
31	314-428	1	
32	314-438	1	″17″
33	————	1	
34	314-854	1	
35	311-741	1	
36	994-273	1	
37	314-432	1	
38	959-140	1	
39	938-307	1	
40	————	1	

A	B	C	D
41	936-551	2	
42	999-021	2	
43	313-777	2	
44	314-603	1	
45	305-499	2	M3.5×6
46	980-063	1	
47	937-631	1	
48	984-750	2	D4×16
49 1	953-327	1	D8.8
49 2	938-051	1	D10.1
50	314-433	1	
51	301-815	2	D4×45
52	————	1	
501	943-277	1	3MM
502	949-128	1	

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